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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/749,284	12/30/2003	Gerald A. Domoto	D/A3194 XERZ 2 00659	9827
27885	7590	11/18/2005		
FAY, SHARPE, FAGAN, MINNICH & MCKEE, LLP 1100 SUPERIOR AVENUE, SEVENTH FLOOR CLEVELAND, OH 44114			EXAMINER NGO, HOANG X	
			ART UNIT 2852	PAPER NUMBER

DATE MAILED: 11/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary	Application No.		Applicant(s)	
	10/749,284		DOMOTO ET AL.	
	Examiner		Art Unit	
	Hoang Ngo		2852	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,7-10,13,14,16 and 19-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,7-10,13,14,16 and 19-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Hirst et al.

Hirst et al disclose a fusing station 102 (Fig. 2) and method for fusing a marking agent (i.e. toner) to an imaging receiving medium (i.e. recording medium, see Abstract), said fusing station comprising a fuser roller 136 configured as a heat pipe 210 including a sealed hollow cavity 306 containing a working fluid (Col. 6, lines 46-63); a pressure roller 138 that forms a nip with the fuser roller through which the image receiving medium passes, and an electrical coil 628 (Fig. 6) inductively coupled to the fuser roller to inductively heat the fuser roller upon energizing the electrical coil with electrical power (Col. 8, lines 20-50).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 7, 8, 13, 14, 19, 20, 21, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirst et al in view of Omoto et al.

As discussed above, Hirst et al disclose every aspects of the applicant's claimed invention except for the fuser roller having a wall with a thickness of less than 0.3 mm, the wall is formed of a magnetic material or of a nonconductive material having embedded magnetic particles; the electrical coil forming around the fusing roller.

Omoto et al disclose a fuser roller 41 having a wall thickness of less than 0.3 mm (Col. 9, line 63) and is formed of a magnetic material or of a nonconductive material having embedded magnetic particles (Col. 10, lines 30-40) and an electrical coil (i.e. coil 43a, Fig. 20) that forms around the fusing roller.

Therefore, it would have been obvious to one having ordinary skill in the art to incorporate the fuser roller wall thickness, material, and the location of the electrical coil

in relation to the fusing roller as taught by Omoto in order to obtain a better thermal conductivity for the fusing roller.

6. Claims 3, 4, 16, 22, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirst et al in view of Lee.

As discussed above, Hirst et al disclose every aspect of applicant's claimed invention except for having a heat pipe that can stiffen against deformation; the working fluid is a combination of water and methanol and having a pressure greater than 135 psi at the operating temperatures of between 350 – 400 degrees F.

Lee discloses an image forming apparatus comprising a fuser roller 212 having a heat pipe 262 made of a material (i.e. type 60 aluminum, Col. 11, line 60) and an internal pressure load that can stiffen against deformation (Col. 14, lines 35-60), a working fluid with a combination of water and methanol (Table 2, Col. 13) having a pressure greater than 135 psi at a working temperature of between 350 – 400 degrees F (see Table 4, Col. 14).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the heat pipe as taught by Lee in order to prevent the heat pipe from being deformed by high heat and pressure.

7. Claims 9 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirst et al in view of Hyllberg et al.

As discussed above, Hirst et al disclose every aspects of the applicant's claimed invention except for a pressure relief system provided on the- fuser roller to protect against over pressurization.

Hyllberg et al disclose a fuser roller 10 having a heat pipe 21 with a pressure relief system (i.e. pressure rupture disk, Col 4, lines 64-67) to protect against over pressurization.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the pressure relief system taught by Hyllberg et al to the device of Hirst et al to protect the heat pipe from over pressurization.

Response to Arguments

8. Applicant's arguments with respect to claims 3, 4, 7-10, 13, 14, 19, and 20 have been considered but are moot in view of the new ground(s) of rejection.

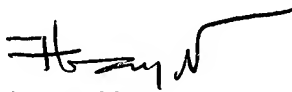
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoang Ngo whose telephone number is (571) 272-2138. The examiner can normally be reached on 6:00am - 2:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur Grimley can be reached on (571) 272-2136. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Hoang Ngo
Primary Examiner
Art Unit 2852

HN
November 15, 2005